

Commonwealth of Massachusetts  
Department of Telecommunications and Energy  
Fitchburg Gas and Electric Light Company  
Docket No. D.T.E. 02-24/25  
Record Request Response

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**Record Request No.: DTE-RR-55 (Gas)**

Regarding inflation information shown on Schedule MHC-7-15 (Gas), Page 2 of 4, Line 6, the index number of 112.30, please describe and reconcile how this number was calculated compared with the method used to calculate the index value of 109.52

**Response:**

The methodology used to calculate the index value was based on a 45-day constant numerator. Unless the actual date is in the middle of the quarter, (February 15, May 15, August 15, November 15), in which case the value is simply the index for that quarter, otherwise the use of 2 indices will be required for the calculation. The denominator is the number of days from the midpoint date to the midpoint of the quarter as noted above. A second calculation is required which is the number of days from the midpoint date to the midpoint of the next nearest quarter. As a check, the sum of the 2 denominators should equal 90. The 2 weighting factors are multiplied by the respective index to arrive at weighted values. A sum of these 2 weighted values will equal the final index value.

Attachment DTE-RR-55 (Gas), page 1 of 2, indicates how this methodology was used to calculate the amount on MHC 7-15 (Gas), Page 2 of 4, line 3. For example, the 109.52 is the index value for the Midpoint of Test Year date (July 1, 2001) that is directly between 2 quarters. In this case the amount is the average of the 2<sup>nd</sup> and 3<sup>rd</sup> quarter indices for 2001. To verify this, the amount will be calculated using the methodology described above. The number of days from July 1 to the 2<sup>nd</sup> quarter midpoint of May 15, is 45, and therefore the weighting factor is  $45/45=1$ . The entire index of 109.21 for the 2<sup>nd</sup> quarter will be used for the first weighted value. The number of days from July 1 to the 3<sup>rd</sup> quarter midpoint of August 15, is 45. This weighting factor is also  $45/45=1$  and the entire 3<sup>rd</sup> quarter index of 109.82 will be used as the second weighted value. The sum of the 2 weighted values ( $109.21+109.82=219.03$ ) is then divided by the sum of the weighting factors ( $1+1=2$ ) which results in the July 1, 2001 index value of 109.52.

As shown on Attachment DTE-RR-55 (Gas), page 2 of 2, a similar calculation must be used because June 1, 2003 is not the actual date between two quarters. For example, since the date is June 1, 2003, there are 15 days from the middle of the 2<sup>nd</sup> quarter (May 15) to June 1. Therefore the weighting factor for quarter 2 is  $45/15=3$ . This weighting factor is then multiplied by the index for the 2<sup>nd</sup> quarter of 2003, which in this instance is 112.2 to arrive at the first weighted value of 336.6.

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A second value needs to be calculated since the Midpoint of Rate Year Date is not at a quarter midpoint. This June 1 date is next closest to the middle of the 3<sup>rd</sup> quarter of 2002. There are 75 days from June 1 to the middle of the 3<sup>rd</sup> quarter (August 15). Therefore a weighting factor of  $45/75=.6$  must be multiplied by the index for the 3<sup>rd</sup> quarter, which in this instance is 112.8 to arrive at a weighted value of 67.68. The last step is to add the 2 weighted values ( $336.6+67.68=404.28$ ) and divide by the sum of the weighting factors ( $3+.6=3.6$ ). The result is a June 1, 2003 index value of 112.3. See Attachment DTE-RR-55 (Gas), Page 2 of 2, for the calculation.

**Person Responsible:** Mark H. Collin

**For July 1 2001 Index Value**

**Note 1 - Weighting factor is  $45/45=1$  for both quarters**

**For June 1, 2003 Index Value**

equals 112.30 (June 1, 2003 index value)

**Note 1 - Weighting factor is  $45 / 15 = 3$  for quarter 2**

Note 2 - Weighting factor is  $45 / 75 = .6$  for quarter 3